NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
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MEMO TO : Interested Parties

FROM : Kyla Schneider KRS
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Division of Air Quality

RE : Aerial Application of Pesticide

DATE : April 19, 2007

Background

NDAC 33-15-10 states that aerial application of pesticide over any City in the state requires approval from the Department. The Chapter also says that approval will only be given for "well-thought-out public health purposes," and/or "emergencies or potential emergencies." Ideally, the request will be from an area in which a vector control board has been established. That would satisfy the "well-thought-out public health purposes" requirement; however, this is not the case in some of the requests.

The Department gets requests every year, usually in April or May from cities (and Bases) who are anticipating high mosquito populations at some time in the approaching summer months. We also receive requests for cankerworm control in the spring. In addition to the spring applications, we also receive more hastily prepared requests from entities wishing to aerially control pests (namely mosquitoes) at outdoor functions and events periodically throughout the summer and early fall.

Most requests for aerial spraying of mosquitoes are for relief from nuisance varieties of the pests. Spraying for adult mosquitos without any planning for reduction of larval populations and breeding environments is mostly ineffective, and the negative impact of spraying can far outweigh the temporary relief which may be achieved. From a strict public health standpoint most of these requests are not justified. The only true public health threat from mosquitoes in North Dakota involves Western Equine Encephalitis (WEE), or the West Nile Virus (WNV). Outbreaks in WEE are tied to a significant shift in the mosquito population from the various nuisance varieties to a large population of *Culex tarsalis*, which is the disease carrier. In North Dakota this typically occurs very late in the mosquito season. It has also been observed

earlier in the summer after warm weather flooding followed by extremely hot conditions. WNV is carried by a number of species, some of which were previously considered to be nuisance varieties. Last season saw an extremely rapid, and somewhat unpredicted spread of WNV across the Nation. Should this trend continue, the State may declare an emergency relative to WNV in which case the need to seek approval for aerial application of pesticides would be waived.

Procedure for Approval

Whether or not the Department deems an aerial application to be justified or not, most city administrators conclude that if they receive considerable public pressure to spray, then an emergency of sorts exists. The Department has established a policy of approving aerial application of pesticides under a set of conditions. Attached is a copy of the application which is used. Should anyone get a phone call inquiring about the possibility of aerial application of pesticide, the following procedure for approval should be used:

1. Establish whether the proposed application is aerial, and if it is intended to occur over a populated area. Ground fogging, or aerial applications over rural areas do not require approval from this Department, only certification and training from the State Ag Department and/or FAA and the State Aeronautics Board.

2. Spraying must be done by a certified aerial applicator. (Few, if any crop sprayers are not certified.) Certification is made by the State Ag Department. Aerial sprayers must also be registered with the FAA and the State Aeronautics Commission.

3. Spraying must be done with ultra low velocity (ULV) spraying equipment. (Very few crop sprayers are so equipped.)

4 Only EPA registered pesticide may be used unless waived by public health emergency declaration. Biomist 30+30 ULV, or Trumpet are the most common for mosquitos. Foray 48 B is most common for cankerworms. Foray is not a chemical pesticide. It is instead a microorganism which infects and effectively destroys the cankerworm. It is actually the spore form of the bacterium *Bacillus thuringiensis*.

5. Applicant must establish a means for notifying public of when the spraying is to take place, so that at-risk individuals can take precautions.

6. All spraying must be done in accordance with FAA guidelines and follow reasonable procedures to minimize negative environmental impact. Considerations include, but are not

limited to, time of day, day of week, ambient temperature, wind speed/direction and proximity to shorelines and other natural resources.

7. The attached form serves as an application to be completed and returned to the Department. Upon review, the form is signed by the Division Director. A copy of the signed form is returned to the requesting party, which is usually the aerial applicator, and becomes the written approval required by NDAC 33-15-10.

KKS:saj